

# Environmental Management Systems

Marci Carter  
Iowa Waste Reduction Center  
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# Iowa Waste Reduction Center



- ◆ Started in 1988 under the Groundwater Protection Act
- ◆ Free & Confidential
- ◆ EMS Service Center

# International Organization of Standardization

- ◆ ISO's mission is to promote international trade by harmonizing international standards.
- ◆ ISO had developed international standards for manufacturing, communication, trade, and management systems.
- ◆ Currently, there are over 100 member countries.

# International Organization of Standardization

- ◆ 1906 International Electrotechnical Commission
- ◆ 1926 International Federation of the National Standardizing Associations
- ◆ 1946 International Organization of Standardization
  - 25 member countries



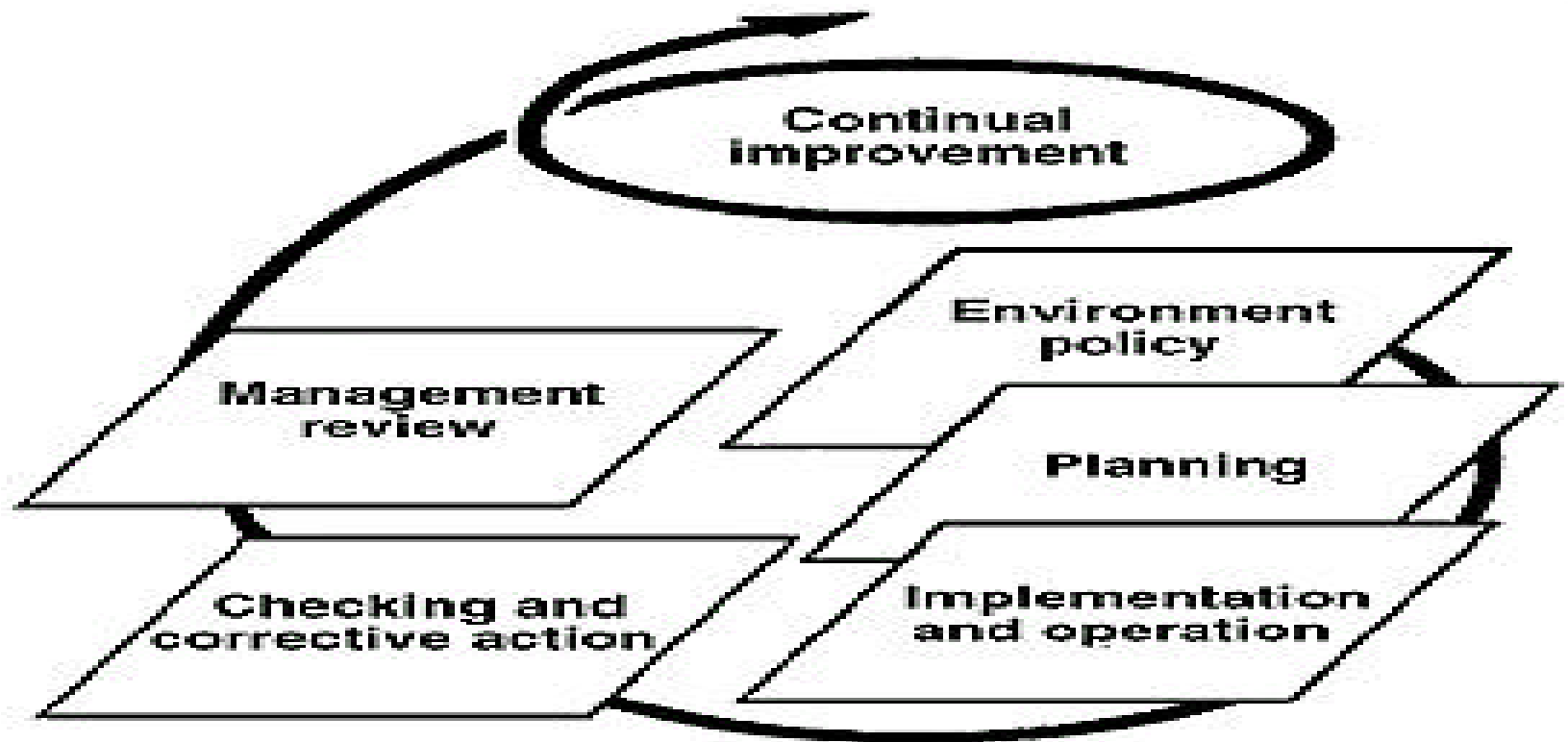
# ISO 14000

- ◆ ISO 14000 contains 6 standards
  - Environmental Management Systems
  - Environmental Auditing Requirements
  - Environmental Performance Evaluation
  - Life Cycle Assessment
  - Environmental Labeling
  - Environmental Aspects in Product Standards

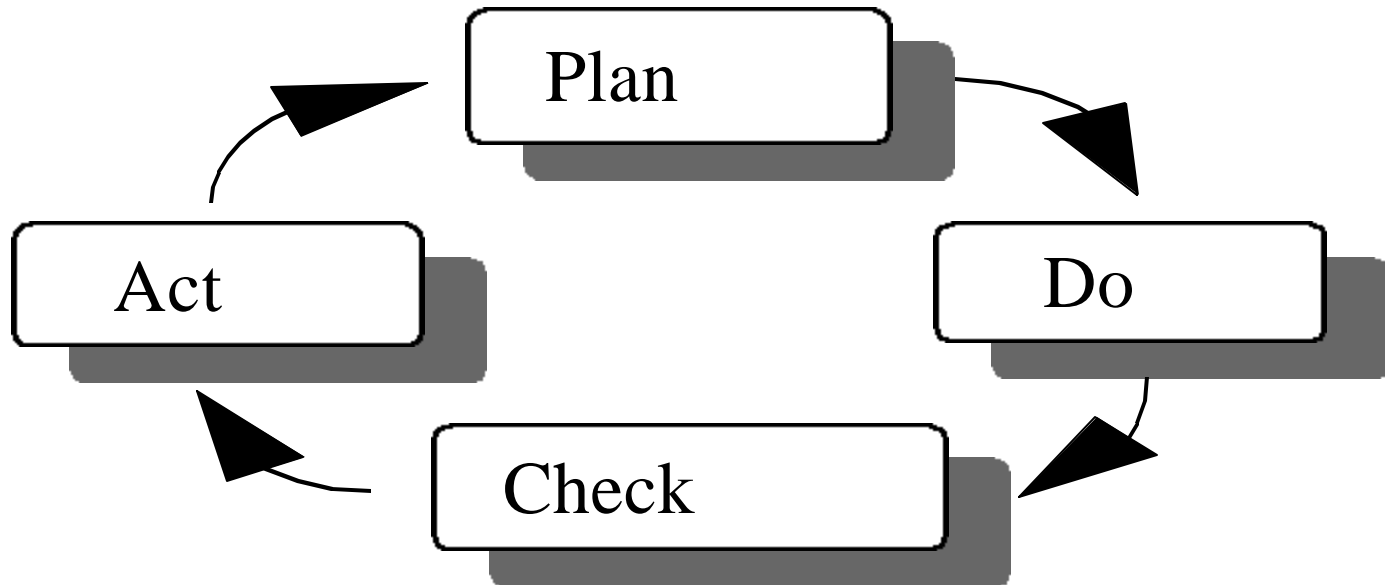
# What is an EMS?

- ◆ “The part of an overall management system that includes organizational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy.”

# EMS Framework



# EMS Framework





# Plan

- ◆ Where are we, where do we want to go?
  - Environmental policy
  - Identify environmental impacts (aspects)
  - Identify legal and other requirements
  - Prioritize
  - Set objectives and targets
  - Establish environmental programs



# Do

- ◆ Put programs and resources in place to get where you want to go.
  - Structure and responsibility
  - Training
  - Communication
  - EMS Documentation and Records
  - Operational Control
  - Emergency preparedness and response



# Check

- ◆ Ensure your goals are met
  - Monitor and measure
  - Identify nonconformances
  - Corrective and preventive action
  - Audit and assess



# Act

- ◆ Improve system when, and if, needed
  - Management review

# Why??

- ◆ Improved performance
  - Provides a systematic approach for managing environmental issues
    - EMS integrates with other business systems
    - Identifies redundancy
    - Leads to reliable and quantifiable environmental performance
    - Entire staff is involved

# Why??

- ◆ Demonstrates due diligence and compliance
  - Provides structure to identify legal environmental requirements
    - Maintain compliance
    - Beyond compliance
  - Provides structure to identify nonregulatory aspects

# Why??

- ◆ Increased efficiency and profitability
  - Provides structure so that goals and objectives are met
    - Entire staff involved in the function of the EMS
    - EMS promotes evaluating costs of activities
    - Reduces unnecessary expenditures

# Why??

- ◆ Improved stakeholder relationships
  - Provides framework for effective communication
    - Makes a statement about attitude toward environment
    - Improved relationship with regulatory community
    - Builds trust through communication



# Why??

- ◆ Increased competitive advantage
  - Customer requirement
  - Access to grants
  - Reduced insurance premiums
  - Reduced bank interest
  - Reduced costs through improved efficiency and lessened regulatory burden



# Barriers to Implementation



- ◆ Fear of discovery
- ◆ Lack of resources
- ◆ Not a customer requirement
- ◆ Not relevant
- ◆ Seems complicated and burdensome

# Challenges for Universities and Colleges

- ◆ Multifunctional organizations
- ◆ Total environmental impacts unknown
- ◆ Turnover of students and facility
- ◆ Cavalier attitude toward environmental regulations

# EMS Growth

Global		United States	
◆ 1996	1,491	◆ 1996	4
◆ 1997	5,017	◆ 1997	83
◆ 1998	5,446	◆ 1998	188
◆ 1999	9,700	◆ 1999	450
◆ 2000	23,721	◆ 2000	1,340
◆ 2001	27,509	◆ 2001	1,420



# EMS Service Center



- ◆ IWRC's EMS Service Center
  - Provide support to local government and small business in Region 7
  - Support EMS service providers in Region 7



# Contact Information



Marci Carter

1-800-422-3109

[carterm@uni.edu](mailto:carterm@uni.edu)

[www.iwrc.org](http://www.iwrc.org)